

Appl. No. 10/605,327
Amdt. dated December 15, 2004
Reply to Office action of October 21, 2004

REMARKS

1. The drawings are objected to under 37 CFR 1.83(a). The limitations of claims 16
5 and 17 must be shown or the feature(s) canceled from the claim(s)

New Figure 5 is added to show the features of claim 16, specifically wherein the first
impedance comprises a first capacitor, and the second impedance comprises a second
capacitor. New Figure 6 is added to show the features of claim 17, specifically wherein
10 the first impedance comprises a first inductor, and the second impedance comprises a
second inductor. Additionally, the specification is amended to reference the newly added
Figure 5 and Figure 6.

The newly added figures and amendments to the specification do not introduce new
15 matter and are supported in paragraph [0015] of the original application as filed.
Specifically, as stated in paragraph [0015] of the original application, "although the first
impedance 42 and the second impedance 46 are resistors in the embodiments mentioned
above, they could also be other impedance devices such as capacitors and inductors"

- 20 2. Claims 16-17 are rejected under 35 U.S.C. 112, first paragraph, as failing to
comply with the written description requirement. The specification, as originally
filed, has failed to describe the first and second impedance to be capacitors,
inductors as called for in claims 16 and 17, respectively.

25 Applicant asserts that the specification does describe the first and second
impedances to be capacitors and inductors as called for in claim 16 and 17, respectively.
As stated above, paragraph [0015] of the original application as filed states "although the
first impedance 42 and the second impedance 46 are resistors in the embodiments
mentioned above, they could also be other impedance devices such as capacitors and

Appl. No. 10/605,327
Amdt. dated December 15, 2004
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inductors.”

3. Claims 18-19 and 21-22 are rejected under 35 U.S.C. 112, first paragraph, as
5 failing to comply with the enablement requirement.

Claims 18-19 and 21-22 are cancelled.

3. Claims 1-11 are rejected under 35 U.S.C. 102(b) as being anticipated by
10 Kothandaraman et al. (USP 6,147,520).

Claims 1-11 are cancelled.

3. Claims 12 and 16 are rejected under 35 U.S.C 102(b) as being anticipated by
15 Japanese reference (JP 5-347520)

Applicant asserts that the JP 5-347520 reference does not teach every element nor
show the complete details of claim 12 and therefore does not anticipate the present
invention.

- 20 Examiner stated that “since JP 5-347520 reference has similar structure therefore it
is capable of providing the equivalent impedance which is determined by continuously
turning on and off of the first switch element, and continuously turning on and off of the
second switch as called for in claims 12 and 16.” However, the JP 5-347520 reference
does not teach the feature of claim 12 that “the equivalent impedance is determined by
25 continuously turning on and off the first switch element, and continuously turning on and
off the second switch element”, as claimed in claim 12.

As stated in MPEP section 2131, “to anticipate a claim, the reference must teach
every element of the claim.” The same section of the MPEP states “the identical invention
must be shown in as complete detail as is contained in the claim.” Additionally,

Appl. No. 10/605,327
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well-established case law states: “[a] claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference.” *Verdegaal Bros. V. Union Oil Co. of California*, 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987). In other words, the accepted standard of anticipation is whether the cited reference “teaches”, or “discloses”, each and every element, either expressly or under the principle of inherency, of the claimed invention. Because the JP 5-347520 reference does not teach every element of claim 12 and is not shown having the complete details as stated in claim 12, applicant asserts that the JP 5-347520 reference does not anticipate the present invention. Reconsideration of claim 12 is respectfully requested. As claim 16 is dependent on claim 12, if claim 12 is found allowable, so too should claim 16.

4. Claims 12-15 and 20-22 are rejected under 35 U.S.C. 102(e) as being anticipated by Yu et al. (2002/0180507)

Applicant asserts that Yu et al. do not teach every element nor show the complete details of claims 12-15 and 20, and therefore do not anticipate the present invention.

Concerning claims 12-15, Examiner stated that “since Yu et al.’s reference has similar structure therefore it is capable of providing the equivalent impedance which is determined by continuously turning on and off of the first switch element, and continuously turning on and off of the second switch as called for in claims 12-15.” However, the Yu et al. do not teach the feature of claim 12 that “the equivalent impedance is determined by continuously turning on and off the first switch element, and continuously turning on and off the second switch element”, as claimed in claim 12.

Concerning claim 20, Examiner stated that “since Yu et al.’s reference has similar structure as of the present invention, therefore it is capable of providing the equivalent impedance through controlling the turning on and off of the first and second switches.” However, again Yu et al. do not teach the feature of claim 20 that “the equivalent

Appl. No. 10/605,327
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impedance is determined by the first impedance value and the second impedance value through controlling frequencies of turning on and turning off the first switch element and the second switch element", as claimed in claim 20.

5 In fact, Yu et al. teach against determining the equivalent impedance in the manners claimed in claim 12 and claim 20. In paragraph [0026], Yu et al. state that "the resistance value for the resistive element of the resistor network of the present invention is exactly the resistance value of the equivalent resistor that is formed by connecting the selected resistors in parallel". This is different and not similar to determining the equivalent
10 impedance "by continuously turning on and off the first switch element, and continuously turning on and off the second switch element" according to claim 12, or "through controlling frequencies of turning on and turning off the first switch element and the second switch element", according to claim 20. These features of the present that are present in claim 12 and claim 20 are not shown by Yu et al..

15 Additionally, in claim 15, the first switch element is controlled to turn on and off by a first periodic signal. By continuously turning on and off the first and second switches with a periodic signal, the equivalent resistance is determined according to the specific duty cycle of the periodic signal. Yu et al. do not teach this feature of claim 15. In claim 16, the second switch element is controlled to turn on and off by a second periodic signal.
20 Therefore, according to claim 16, different period signals can be used to turn on and off the two switch elements. Yu et al. also do not teach this feature of claim 16.

Because Yu et al. do not teach every element nor show the complete details stated in the limitations of claims 12-14 and 20, and furthermore teach against limitations of claim 12 and claim 20, applicant asserts that Yu et al. do not anticipate the present invention.
25 Reconsideration of claims 12-14 and 20 is respectfully requested. As claim 15 is depended on claim 12, if claim 12 is found allowable, so too should claim 15.

5. Claim 17 is rejected under 35 U.S.C. 103(a) as being unpatentable over Yu et al. (2002/0180507)

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Applicant asserts that simply using inductors according to the teachings of Yu et al. does not result in the present invention. Examiner stated that "the differences seen between Yu et al. and the present invention is that the reference invention use inductors
5 instead of resistors." However, as explained in the above argument against the U.S.C. 102 rejections of claim 12, applicant asserts that Yu et al. do not teach every element of the present invention and in fact teach against a limitation of the present invention stated in claim 12. Therefore, simply replacing the resistors of Yu et al. with inductors will not result in the present invention without further inventive process. Reconsideration of claim
10 17 is respectfully considered.

Sincerely yours,

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